

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A pipe joint device, comprising:

flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe joint to be coupled together, ~~the each~~ flange having at least one ring groove around an outer circumferential surface thereof;

a packing mounted to the flanges and having inner rings protruding from and integrally formed around an inner circumferential surface of the packing to closely engage with the ring grooves of the flanges; and

a clamp having a packing seat to seat the packing therein, with a support sidewall formed by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of clamp parts so that the clamp parts are placed around the packing and are fastened together by a locking member,

wherein the packing comprises a main channel formed along a central line of an outer circumferential surface of the packing, and the clamp comprises a central rib formed on the packing seat to correspond to the main channel.

Claim 2 (cancelled).

Claim 3 (currently amended): The pipe joint device according to claim 2_1, wherein the packing further comprises at least one side channel symmetrically formed around the outer circumferential surface of the packing on opposite sides of the main channel, and the clamp further comprises at least one side rib formed on the packing seat to correspond to the side channels.

Claims 4-6 (cancelled).

Claim 7 (currently amended): ~~The A pipe joint device according to claim 1 comprising:~~
~~flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe~~
~~joint to be coupled together, each flange having at least one ring groove around an outer~~
~~circumferential surface thereof;~~

~~a packing mounted to the flanges and having inner rings protruding from and integrally~~
~~formed around an inner circumferential surface of the packing to closely engage with the ring~~
~~grooves of the flanges; and~~

~~a clamp having a packing seat to seat the packing therein, with a support sidewall formed~~
~~by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of~~
~~clamp parts so that the clamp parts are placed around the packing and are fastened together by a~~
~~locking member,~~

wherein each of the flanges is provided with a support groove around the outer circumferential surface thereof so that the support sidewalls of the clamp are seated in ring-shaped support grooves of the flanges to prevent the pipes or the pipe and the pipe joint from being removed from the clamp.

Claims 8-9 (cancelled).

Claim 10 (currently amended): ~~The A pipe joint device according to claim 1,~~
~~further comprising:~~

~~flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe~~
~~joint to be coupled together, each flange having at least one ring groove around an outer~~
~~circumferential surface thereof;~~

~~a packing mounted to the flanges and having inner rings protruding from and integrally~~
~~formed around an inner circumferential surface of the packing to closely engage with the ring~~
~~grooves of the flanges;~~

~~a clamp having a packing seat to seat the packing therein, with a support sidewall formed~~
~~by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of~~
~~clamp parts so that the clamp parts are placed around the packing and are fastened together by a~~
~~locking member; and~~

an anti-friction member made of metal located on at least a part of the outer circumferential surface of the packing so as to reduce friction between the clamp parts and a deformed part of the packing while-when the clamp parts are fastened together around the packing.

Claim 11 (currently amended): ~~The-A~~ pipe joint device according to claim 1, further comprising:

flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe joint to be coupled together, each flange having at least one ring groove around an outer circumferential surface thereof;

a packing mounted to the flanges and having inner rings protruding from and integrally formed around an inner circumferential surface of the packing to closely engage with the ring grooves of the flanges;

a clamp having a packing seat to seat the packing therein, with a support sidewall formed by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of clamp parts so that the clamp parts are placed around the packing and are fastened together by a locking member; and

an adjusting member inserted into each of the support sidewalls of the clamp to compress the packing, placed between the support sidewalls of the clamp, in a direction of thickness of the packing.

Claim 12 (previously presented): The pipe joint device according to claim 11, further comprising:

a metal ring placed between each side surface of the packing and an associated support sidewall of the clamp so as to evenly transmit compression force to each side surface of the packing when the adjusting member is tightened to compress the packing.

Claim 13 (currently amended): A pipe joint device, comprising:

flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe joint to be coupled together, ~~the~~each flange having at least one ring groove around an outer circumferential surface thereof;

a packing mounted to the flanges and having inner rings around an inner circumferential surface thereof to closely engage with the ring grooves of the flanges; and

a clamp having a packing seat to seat the packing therein, with a support sidewall formed by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of clamp parts so that the clamp parts are placed around the packing and are fastened together by a locking member,

wherein the packing comprises a main channel formed along a central line of an outer circumferential surface of the packing, and the clamp comprises a central rib formed on the packing seat to correspond to the main chafnel.

Claim 14 (previously presented): The pipe joint device according to claim 13, wherein the packing further comprises at least one side channel symmetrically formed around the outer circumferential surface of the packing on opposite sides of the main channel, and the clamp further comprises at least one side rib formed on the packing seat to correspond to the side channels.

Claim 15 (currently amended): A pipe joint device, comprising:

flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe joint to be coupled together, ~~the~~each flange having at least one ring groove around an outer circumferential surface thereof;

a packing mounted to the flanges and having inner rings around an inner circumferential surface thereof to closely engage with the ring grooves of the flanges; and

a clamp having a packing seat to seat the packing therein, with a support sidewall formed by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of clamp parts so that the clamp parts are placed around the packing and are fastened together by a locking member,

wherein each of the flanges is provided with a support groove around the outer circumferential surface thereof so that the support sidewalls of the clamp are seated in ring-shaped support grooves of the flanges to prevent the pipes or the pipe and the pipe joint from being removed from the clamp.

Claim 16 (currently amended): A pipe joint device, comprising:

flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe joint to be coupled together, the each flange having at least one ring groove around an outer circumferential surface thereof;

a packing mounted to the flanges and having inner rings around an inner circumferential surface thereof to closely engage with the ring grooves of the flanges;

a clamp having a packing seat to seat the packing therein, with a support sidewall formed by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of clamp parts so that the clamp parts are placed around the packing and are fastened together by a locking member; and

an anti-friction member made of metal located on at least a part of the outer circumferential surface of the packing so as to reduce friction between the clamp parts and a deformed part of the packing while-when the clamp parts are fastened together around the packing.

Claim 17 (currently amended): A pipe joint device, comprising:

flanges mounted to ends of pipes to be coupled together or ends of both a pipe and a pipe joint to be coupled together, the each flange having at least one ring groove around an outer circumferential surface thereof;

a packing mounted to the flanges and having inner rings around an inner circumferential surface thereof to closely engage with the ring grooves of the flanges;

a clamp having a packing seat to seat the packing therein, with a support sidewall formed by a radial inward extension of each side of the clamp, the clamp being divided into a plurality of clamp parts so that the clamp parts are placed around the packing and are fastened together by a locking member; and

an adjusting member inserted into each of the support sidewalls of the clamp to compress the packing, placed between the support sidewalls of the clamp, in a direction of thickness of the packing.

Claim 18 (previously presented): The pipe joint device according to claim 17, further comprising:

a metal ring placed between each side surface of the packing and an associated support sidewall of the clamp so as to evenly transmit compression force to each side surface of the packing when the adjusting member is tightened to compress the packing.